

OPERATION AND PERFORMANCE DATA

OPERATIONAL DATA:

PERFORMANCE INFORMATION

The following operational data are compiled from actual tests with airplane and engine in good condition and using average piloting technique. Data are based upon a gross weight of 1450 lbs. with standard Sensenich 74FK-49 propeller installed, and apply to both 120 and 140 models. Performance figures are for zero wind velocity and hard surface level runway. Speeds are true indicated airspeeds.

Airspeed	Indicated	40	60	80	100	120	140
Calibration	True Indicated	46	65	83	100	116	133

ITEM	ALTITUDE	OUTSIDE AIR TEMPERATURE					
		0°F	20°F	40°F	60°F	80°F	100°F
<i>Take Off Distance</i>	Sea Level	465	530	594	663	728	795
(Ground Run in Feet)	2000 Ft.	600	689	761	842	923	1004
Airspeed 50 MPH Takeoff	4000 Ft.	760	857	956	1054	1152	1250
Full Throttle, Flaps Up	6000 Ft.	980	1101	1222	1343	1464	1585

Take Off Correction: Reduce above distances 10% for each 5 MPH Wind Velocity.

<i>Landing Distance</i>	Sea Level	233	266	299	332	365	398
(Ground Run in Feet)	2000 Ft.	274	321	348	385	422	460
Approach at 70 MPH	4000 Ft.	329	372	414	457	500	542
Flaps Up	6000 Ft.	381	428	475	522	569	616

<i>Landing Distance</i>	Sea Level	212	242	272	302	332	362
(Ground Run in Feet)	2000 Ft.	252	286	320	354	388	422
Approach at 70 MPH	4000 Ft.	302	341	380	419	458	497
Flaps Down	6000 Ft.	352	396	439	483	527	570

Landing Correction: Reduce above distances 10% for each 5 MPH Wind Velocity.

<i>Normal Rate Climb</i>	81	Sea Level	740	710	675	640	605	570
(Feet Per Minute)	79	2000 Ft.	660	625	595	560	530	495
Flaps Up	76	4000 Ft.	555	520	490	460	425	395
Full Throttle	74	6000 Ft.	455	425	395	365	330	300

Stalling Speed M.P.H. T.I.A.S.	Condition	Angle of Bank Degrees			
		0°	20°	40°	60°
	Power Off; Flaps Up	49	50	56	69
	Power Off; Flaps Down	45	46	52	65
	Power On; Flaps Up	40	41	46	57
	Power On; Flaps Down	37	38	43	52

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CLIMB:

The rate of climb and speed for best climb at various altitudes for gross weight of 1450 lbs. and equipped with wooden Sensenich 74FK-49 propeller is given in the table below:

Attitude (ft.)	Sea Level	2500'	5000'	7500'	10,000'	12,500'	15,000'
Best Climb Speed (T.I.A.S.)	81	78	75	72	69	64	57
Rate of Climb (ft./min.)	640	550	450	360	260	170	70

(1) Density altitude.

(2) Gross weight 1450 with 74FK-49 propeller.

The above table is for standard conditions.

CRUISING:

The following approximate cruising information is applicable at altitudes from sea level to 10,000 ft. It is based on total usable fuel with no allowance for reserve:

R.P.M.	Max. Range	Miles/gal.	Gals./hr.
2575	455	19.4	5.9
2500	485	20.7	5.3
2400*	506	21.5	4.8
2300	518	22.0	4.5
2200	521	22.1	4.2
2100	510	21.7	4.0
*Recommended cruising.			

NOTE: Cruising performance is dependent upon carburetor metering characteristics, engine and propeller condition, and turbulence of the atmosphere in addition to the controllable variables r.p.m., altitude, gross weight, etc. These undeterminate variables may account for variations of 10 per cent or more in the maximum range. The variation in range due to normal changes in gross weight and altitude is within this 10 per cent variation and in order to make the cruising data as readily usable as possible it is presented in this simplified form, using average values for altitude, gross weight, drag, carburetor and engine characteristics.